

WE CLAIM:

1. (Previously presented) Inbred corn seed of the line designated G3001, representative seed of said line have been deposited in the ATCC under accession number X.
2. (original) A corn plant produced by the seed of Claim 1.
3. (Previously presented) A tissue culture of regenerable cells from the plant of G3001 of Claim 2.
4. (Previously presented) A tissue culture of regenerable cells according to Claim 3, wherein the tissue culture is prepared from ~~cells-a tissue~~ the tissue-selected from the group consisting of: leaves, pollen, embryos, roots, root tips, meristem, ovule, anthers, silk, flowers, kernels, ears, cobs, husks and stalks.
5. (Currently Amended) A corn plant capable ~~of expressing~~ comprising, within the limits of environmental influence when grown in the same environmental conditions at the 5% significance level, all of the physiological and morphological characteristics listed in Table I of the inbred line designated G3001 regenerated from the cells of the tissue culture of Claim 3.
6. (Previously presented) Hybrid seed produced by the method comprising the following steps:
 - (a) planting, in pollinating proximity, seeds of corn inbred line G3001, representative seed of said line which have been deposited in the ATCC under accession number X, and another inbred line, one of said inbred lines not releasing pollen;
 - (b) cultivating corn plants resulting from said planting;

(c) allowing cross pollination to occur between said inbred lines;
and

(d) harvesting seeds produced on the non-pollen releasing inbred.

7. (cancelled)

8. (cancelled)

9.(cancelled)

10. (cancelled)

11.(cancelled)

12. (Currently Amended) A maize plant produced from the ~~The plant~~ according to Claim 3 5, by transformation with a comprising, in the plant at least one transgene that confers upon said maize plant tolerance to a herbicide.

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (cancelled)

17. (cancelled))

18. (Currently Amended) A method of introducing a desired trait into maiz inbred line XXX comprising:

a) crossing XXX plants grown from seed deposited under ATCC Accession No. X, with plants of another maize line that comprise a desired trait to produce F1 progeny plants, wherein the desired trait is selected from modified flowering, herbicide resistance, insect resistance, altered starch, altered sugar and resistance to disease;

(b) selecting F1 progeny plants that have the desired trait to produce selected F1 progeny plants;

(c) crossing the selected progeny plants with inbred XXX plants to produce backcross progeny plants;

(d) selecting for backcross progeny plants that have the desired trait and physiological and morphological characteristics of maize inbred line XXX to produce selected backcross progeny plants ; and

(e) repeating steps (c) and (d) three or more times in succession to produce selected fourth or higher backcross progeny plants that comprise the desired trait and all of the physiological and morphological characteristics of maize inbred line XXX with in the limits of environmental influence when grown in the same environmental conditions.

~~identifying the seed according to claim 1, the steps of said method comprising: planting hybrid seed comprising as a parent the corn plant according to claim 2, selecting plants from the planting that appear less robust than the other plants, growing said selected plants; self-pollinating the selected plants; harvesting the seed therefrom, and; identifying the seed as inbred seed.~~

19. (canceled)

20. (Previously presented) The pollen of the corn plant of claim 2.

21. (new) A corn plant comprising, within the limits of environmental influence when grown in the same environmental conditions at the 5% significance level, all of the physiological and morphological characteristics listed in Table I of the inbred line designated G3001.

22. (new) A plant produced by the method of claim 18, wherein the plant has the desired trait and all of the physiological and morphological characteristics of maize inbred line XXX within the limits of environmental influence when grown in the same environmental conditions at the 5% significance level.
23. (new) A method for producing an F1 hybrid maize seed, comprising crossing the plant of claim 2 with a different maize plant and harvesting the resultant F1 hybrid maize seed.
24. (new) An herbicide resistant maize plant produced by the method of claim 12.
25. (new) The maize plant of claim 24, wherein the transgene confers resistance to an herbicide selected from the group consisting essentially of: imidazolinone, glyphosate, glufosinate, phosphinothricin.
26. (new) A method of producing an insect resistant maize plant comprising transforming the maize plant of claim 2 with a transgene that confers insect resistance.
27. (new) An insect resistant maize plant produced by the method of claim 26.
28. (new) The maize plant of claim 27, wherein the transgene encodes a *Bacillus thuringiensis* endotoxin.
29. (new) A method of producing a disease resistant maize plant comprising transforming the maize plant of claim 2 with a transgene that confers disease resistance.

30. (new) A disease resistant maize plant produced by the method of
claim 29